

	Type	L #	Hits	Search Text	DBs
1	BRS	L1	848	(purge or purging or drain\$6 or vacuum) same synthesizer	US- PGPUB; USPAT
2	BRS	L2	369	1 and (pressure or pressurize or pressurization)	US- PGPUB; USPAT
3	BRS	L3	369	1 and (pressure or pressurize or pressurization or pressurizing)	US- PGPUB; USPAT
4	BRS	L4	46	3 and (vial or tube or reactor) near8 (set or bank or line)	US- PGPUB; USPAT
5	BRS	L5	82	1 and (waste or drain) with (tube or line or port or outlet)	US- PGPUB; USPAT
6	BRS	L6	26	4 and (waste or drain) with (tube or line or port or outlet)	US- PGPUB; USPAT
7	BRS	L7	101735 8	(purge or purging or drain\$6 or vacuum)	US- PGPUB; USPAT
8	BRS	L8	602909	7 and (pressure or pressurize or pressurization or pressurizing)	US- PGPUB; USPAT
9	BRS	L9	53855	8 and (waste or drain) with (tube or line or port or outlet)	US- PGPUB; USPAT
10	BRS	L10	9101	9 and (movable or moveable or couple or coupling) near8 (tube or drain or valve or outlet)	US- PGPUB; USPAT
11	BRS	L11	26	3 and (movable or moveable or couple or coupling) near8 (tube or drain or valve or outlet)	US- PGPUB; USPAT
12	BRS	L12	62	1 and (movable or moveable or couple or coupling) near8 (tube or drain or valve or outlet)	US- PGPUB; USPAT
13	BRS	L13	306	9 and synthesizer	US- PGPUB; USPAT

	Type	L #	Hits	Search Text	DBs
14	BRS	L14	4520	9 and reactor	US- PGPUB; USPAT
15	BRS	L15	152	9 and combinatorial near8 synthesis	US- PGPUB; USPAT
16	BRS	L16	7490	9 and (multiple or plurality or set or bank) near8 (vial or reactor or tube or vessel)	US- PGPUB; USPAT
17	BRS	L17	1526	10 and (multiple or plurality or set or bank) near8 (vial or reactor or tube or vessel)	US- PGPUB; USPAT
18	BRS	L18	357	17 and (movable or moveable) near8 tube	US- PGPUB; USPAT

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=> s (purge or purging or drain? or vacuum) (s) synthesizer
L1 47 (PURGE OR PURGING OR DRAIN? OR VACUUM) (S) SYNTHESIZER

=> s 11 and (movable or moveable) (8w) (tube or outlet or drain or valve)
L2 0 L1 AND (MOVABLE OR MOVEABLE) (8W) (TUBE OR OUTLET OR DRAIN OR
VALVE)

=> s l1 and (movable or moveable) (s) (tube or outlet or drain or valve)
L3 0 L1 AND (MOVABLE OR MOVEABLE) (S) (TUBE OR OUTLET OR DRAIN OR
VALVE)

=> s (purge or purging or drain? or vacuum) (s) (pressurize or pressurizing or pressurization)

L4 809 (PURGE OR PURGING OR DRAIN? OR VACUUM) (S) (PRESSURIZE OR PRESSURIZING OR PRESSURIZATION)

=> s 14 and synthesizer
L5 0 L4 AND SYNTHESIZER

=> s 14 and (movable or moveable) (s) (tube or outlet or drain or valve)
L6 1 L4 AND (MOVABLE OR MOVEABLE) (S) (TUBE OR OUTLET OR DRAIN OR
VALVE)

=> s 14 and (movable or moveable or couple or coupled or coupling or interfac? or connect?) (s) (tube or outlet or drain or valve)
L7 45 L4 AND (MOVABLE OR MOVEABLE OR COUPLE OR COUPLED OR COUPLING
OR INTERFAC? OR CONNECT?) (S) (TUBE OR OUTLET OR DRAIN OR VALVE)

=> s l1 and (vial or reactor or tube or vessel)
L8 11 L1 AND (VIAL OR REACTOR OR TUBE OR VESSEL)

=> s 17 and (vial or reactor or tube or vessel)
L9 22 L7 AND (VIAL OR REACTOR OR TUBE OR VESSEL)

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=> display 18 1-11 ibib abs
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L8 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:819377 CAPLUS

DOCUMENT NUMBER: 133:351903

TITLE: Chemical synthesizer systems

INVENTOR(S) : Antonenko, Valery V.; Kulikov, Nicolay V.

PATENT ASSIGNEE(S): Glaxo Wellcome Inc., USA
 SOURCE: U.S., 29 pp., Cont.-in-part of U. S. Ser. No. 947,476.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6149869	A	20001121	US 1998-58971	19980410
US 6042789	A	20000328	US 1996-736317	19961023
US 6051439	A	20000418	US 1997-947476	19971010
PRIORITY APPLN. INFO.:			US 1996-736317	A2 19961023
			US 1997-947476	A2 19971010

AB Improved chemical synthesizers are described and methods for their use. The chemical synthesizer system is provided with a reaction vessel block having a plurality of reaction vessels which are adapted to hold solid supports. A wash plate is removably attachable to a top end of the reaction vessel block. The wash plate has a plurality of fluid delivery orifices which are aligned with the reaction vessels when the wash plate is attached to the top end of the reaction vessel block. In this way, fluids may be supplied to each of the reaction vessels through the orifices. The system can include a vortex mixer that is held stationary by evacuation of a cavity formed between the mixer base and a gasket.

REFERENCE COUNT: 115 THERE ARE 115 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:688148 CAPLUS
 DOCUMENT NUMBER: 133:267274
 TITLE: Polymer synthesizing apparatus
 INVENTOR(S): Hunicke-Smith, Scott P.; Guettler, Robert; Koh, Jimmy Tiansing
 PATENT ASSIGNEE(S): Genomic Instrumentation Services, Inc., USA
 SOURCE: PCT Int. Appl., 25 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000056445	A1	20000928	WO 2000-US6913	20000316
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6800250	B1	20041005	US 2000-527106	20000316
PRIORITY APPLN. INFO.:			US 1999-125262P	P 19990319

AB A polymer synthesizing apparatus is disclosed which has a base on which sits a synthesis case, a synthesis block, and a means of moving the synthesis block and supports for a reagent shelf. The synthesis case has a loading station, drain station, and a water tolerant reagent area and a water sensitive reagent dispensing area. The synthesis case has a cover, a first and a second side, a first and a second end, and a bottom side which

contacts the base. The bottom side of the synthesis case has a top face in which there are tracks. A synthesis block moves back and forth in the synthesis case and has a top face and an opening in the top face for a synthesis plate with a plurality of wells. The synthesis block also has a collection area under the synthesis plate to drain spent reagents or optionally hold a sample plate. The polymer synthesizer also has a means of moving the synthesis block back and forth in the synthesis case, preferably a pulley, cable and motor. The polymer **synthesizer** also has a means of **draining** the liquid from the synthesis plate. A method of synthesizing oligonucleotides with the polymer synthesizer also is disclosed.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:650517 CAPLUS
DOCUMENT NUMBER: 119:250517
TITLE: Apparatus for isolation of synthetic peptide without loss of reagents
INVENTOR(S): Nokihara, Kiyoshi; Yamamoto, Rintaro; Nakamura, Shin
PATENT ASSIGNEE(S): Shimadzu Corp., Japan
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 558050	A1	19930901	EP 1993-103089	19930226
EP 558050	B1	19960925		
R: DE, FR, GB, SE				
JP 05239089	A2	19930917	JP 1992-43312	19920228
JP 07094468	B4	19951011		
US 5356596	A	19941018	US 1993-22036	19930224
PRIORITY APPLN. INFO.:			JP 1992-43312	A 19920228

AB The title apparatus, used in conjunction with a multiple-channel, solid-phase peptide **synthesizer**, comprises (1) at least one removable reaction **vessel** which carries out both synthesis and resin-cleavage reaction-isolation of peptides and has a flanged supply opening for reagents and a **drainage port** covered by a filter impermeable to a solid support matrix, (2) a removable stopper for plugging said **drainage port**, and (3) a blow unit capable of supplying inert gas under regulable pressure into a reaction chamber which is defined by said reaction **vessel** and said filter, in order to **purge** said reaction chamber of a peptide solution therein as a liquid phase and forcibly pass it via said filter through said **drainage port**. The apparatus further comprises a stand rack for retainably supporting a plurality of centrifuge **tubes** simultaneously. Prior to cleavage of peptides from a resin support, a **drainage port** of each reaction **vessel** is closed off by a stopper and is inserted into a centrifuge **tube**, which in turn is put into said rack supporting a number of **tubes** equal to the number of channels of the peptide **synthesizer**. After a cleaving solution is added in each of the reaction **vessels** and the peptides are cleaved and dissolved into the cleaving solution, the stoppers are removed from the drainage port of each reaction **vessel**, and the **vessel** is returned into the centrifuge **tube**. A plastic jet-fitting attached to the nozzle tip of a blow unit pressure gun is inserted and pressed into contact against the supply opening of the reaction **vessel**. Operating a trigger of the pressure gun releases pressurized inert gas into the reaction chamber. The peptide-dissolved cleaving solution is thereby passed through the drainage port, and is thus transferred in liquid

phase into the centrifuge tube as filtrate associated with the blow unit pressure gun, a needle tube is provided for localized desiccation of wetted peptide after precipitation and centrifugation. The apparatus

and the use of the same reaction vessel for the peptide synthesis as well as its resin-cleavage and isolation improves the efficiency of the peptide isolation procedure overall, in particular to eliminate mech. losses resulting from intervessel transfer of a peptide-bound resin or peptide solution and contamination in the isolation process and thus ensure accuracy in micro-mol. regulation of small-scale peptide synthesis.

L8 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:152415 CAPLUS
DOCUMENT NUMBER: 116:152415
TITLE: Method and apparatus for biopolymer synthesis
INVENTOR(S): Zuckermann, Ronald N.; Heubner, Verena D.; Santi, Daniel V.; Siani, Michael A.

PATENT ASSIGNEE(S): Protos Corp., USA

SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9117823	A1	19911128	WO 1991-US2776	19910423
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5182366	A	19930126	US 1990-523791	19900515
CA 2082650	AA	19911116	CA 1991-2082650	19910423
CA 2082650	C	19990824		
JP 05509257	T2	19931222	JP 1991-509001	19910423
JP 2544269	B2	19961016		
EP 593460	A1	19940427	EP 1991-909373	19910423
EP 593460	B1	19950927		
EP 593460	B2	19981125		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 128380	E	19951015	AT 1991-909373	19910423
ES 2079064	T3	19960101	ES 1991-909373	19910423
US 5705610	A	19980106	US 1993-131057	19931001
US 5811387	A	19980922	US 1995-438746	19950510
US 5965695	A	19991012	US 1995-438896	19950510
US 6075121	A	20000613	US 1995-438436	19950510
US 5840841	A	19981124	US 1997-853066	19970508
PRIORITY APPLN. INFO.:			US 1990-523791	A 19900515
			US 1991-652194	A 19910207
			US 1990-538339	B2 19900614
			WO 1991-US2776	W 19910423
			US 1991-715823	B3 19910614
			US 1993-131057	A1 19931001

AB A synthesizer for biopolymers (polypeptides, polynucleotides) using multiple reaction vessels having particle filters in their bottoms and containing solid phase particle support media is operated via a vacuum source, a compressed gas source, and (solenoid) valving. A robotic arm may be used for transfer of liquid reagents from reagent vessels to the reaction vessels.

L8 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:413191 CAPLUS
DOCUMENT NUMBER: 109:13191
TITLE: Efficiency estimates of two ways of muon production in

AUTHOR(S) : HMC [hybrid muon catalyzed]-reactor
Petrov, Yu. V.; Sakhnovskii, E. G.
CORPORATE SOURCE: Leningrad Nucl. Phys. Inst., Gatchina, 188350, USSR
SOURCE: Muon Catalyzed Fusion (1988), 3(1-4), 571-6
CODEN: MCFUEX; ISSN: 0259-9805

DOCUMENT TYPE: Journal
LANGUAGE: English

AB The efficiency of muon utilization is estimated by the Monte Carlo method for 2 ways of muon production: in the **reactor** either with the **vacuum** decay unit as a converter or without converter with the gaseous D-T target as a **synthesizer**. The losses of muons in a Li pion-producing target are evaluated for the model with a converter.

L8 ANSWER 6 OF 11 INSPEC (C) 2006 IET on STN
ACCESSION NUMBER: 2001:6802291 INSPEC
DOCUMENT NUMBER: B2001-02-1350H-022
TITLE: CMOS RF integrated circuits at 5 GHz and beyond
AUTHOR: Lee, T.H.; Wong, S.S. (Center for Integrated Syst., Stanford Univ., CA, USA)
SOURCE: Proceedings of the IEEE (Oct. 2000), vol.88, no.10, p. 1560-71, 26 refs.
CODEN: IEEPAD, ISSN: 0018-9219
SICI: 0018-9219(200010)88:10L.1560:CICB;1-U
Price: 0018-9219/2000/\$10.00
Doc.No.: S0018-9219(00)09131-3
Published by: IEEE, USA

DOCUMENT TYPE: Journal
TREATMENT CODE: Application; General Review; Practical
COUNTRY: United States
LANGUAGE: English

AN 2001:6802291 INSPEC DN B2001-02-1350H-022
AB A strong demand for wireless products, an insatiable thirst for spectrum that pushes carrier frequencies ever upward, and the constant quest for higher performance at lower power and cost, have recently driven the development of radio frequency integrated circuit (RFIC) technology in unprecedented ways. These pressures are stimulating novel solutions that allow RFICs to enjoy more of the benefits of Moore's law than has been the case in the past. In addition to regular raw transistor speed increases, the growing number of interconnect layers allows the realization of improved inductors, capacitors, and transmission lines. A deeper understanding of noise at both the device and circuit level has improved the performance of low noise amplifiers (LNAs) and oscillators. Finally, an appropriate raiding of circuit ideas dating back to the **vacuum tube** era enables excellent performance, even when working close to the limits of a technology. This paper surveys some of these developments in the context of low-power RF CMOS technology, with a focus on an illustrative implementation of a low-power 5-GHz wireless LAN receiver in 0.25- μ m CMOS. Thanks to these recent advances in passive components and active circuits, the blocks comprising the receiver consume a total of approximately 37 mW. These blocks include an image-reject LNA, image-reject downconverter, and a complete frequency **synthesizer**. The overall noise figure is 5 dB, and the input-referred third-order intercept (IIP3) is -2 dBm. To underscore that 5 GHz does not represent an upper bound by any means, this paper concludes with a look at active circuits that function beyond 15-20 GHz, and a characterization of on-chip transmission lines up to 50 GHz, all in the context of how scaling is expected to shape future developments

L8 ANSWER 7 OF 11 INSPEC (C) 2006 IET on STN
ACCESSION NUMBER: 1995:5104827 INSPEC
DOCUMENT NUMBER: A1995-24-9480-003; B1995-12-6320-022;
C1995-12-7340-108
TITLE: The frequency-agile radar: a multifunctional approach to remote sensing of the ionosphere

AUTHOR: Tsunoda, R.T.; Livingston, R.C.; Buonocore, J.J.; McKinley, A.V. (Geosci. & Eng. Center, SRI Int., Menlo Park, CA, USA)

SOURCE: Radio Science (Sept.-Oct. 1995), vol.30, no.5, p. 1623-43, 79 refs.

CODEN: RASCAD, ISSN: 0048-6604

Price: 0048-6604/95/95RS-01298\$08.00

DOCUMENT TYPE: Journal

TREATMENT CODE: New Development; Practical; Experimental

COUNTRY: United States

LANGUAGE: English

AN 1995:5104827 INSPEC DN A1995-24-9480-003; B1995-12-6320-022; C1995-12-7340-108

AB Introduces a new kind of diagnostic sensor that combines multifunctional measurement capabilities for ionospheric research. Multifunctionality is realized through agility in frequency selection over an extended band (1.5 to 50 MHz), system modularity, complete system control by software written in C, and a user-friendly computer interface. This sensor, which the authors call the frequency-agile radar (FAR), incorporates dual radar channels and an arbitrary waveform **synthesizer** that allows creative design of sophisticated waveforms as a means of increasing its sensitivity to weak signals while minimizing loss in radar resolution. The sensitivity of the FAR is determined by two sets of power amplifier modules: four 4-kW solid-state broadband amplifiers, and four 30-kW **vacuum tube** amplifiers. FAR control is by an AT-bus personal computer with on-line processing by a programmable array processor. The FAR does not simply house the separate functions of most radio sensors in use today, it provides convenient and flexible access to those functions as elements to be used in any combination. Some of the first results obtained with the FAR during field campaigns are presented to illustrate its versatility. The authors also mention the potential of the FAR for atmospheric remote sensing

L8 ANSWER 8 OF 11 INSPEC (C) 2006 IET on STN

ACCESSION NUMBER: 1988:3183975 INSPEC

DOCUMENT NUMBER: A1988-097042

TITLE: Efficiency estimates of two ways of muon production in **HMC-reactor**

AUTHOR: Petrov, Yu.V.; Sakhnovsky, E.G. (Leningrad Nucl. Phys. Inst., Gatchina, USSR)

SOURCE: Muon Catalyzed Fusion (1988), vol.3, no.1-4, p. 571-6, 7 refs.

CODEN: MCFUEX, ISSN: 0259-9805

Conference: International Symposium on Muon Catalyzed Fusion (μ CF-87), Gatchina, USSR, 25-30 May 1987

Conference; Conference Article; Journal

DOCUMENT TYPE: Theoretical

TREATMENT CODE: Switzerland

COUNTRY: English

LANGUAGE: English

AN 1988:3183975 INSPEC DN A1988-097042

AB The efficiency of muon utilization is estimated by the Monte Carlo method for two ways of muon production: in the **reactor** either with the **vacuum** decay unit as a converter or without converter with the gaseous deuterium-tritium target as a **synthesizer**. The losses of muons in a lithium pion-producing target are evaluated for the model with a converter

L8 ANSWER 9 OF 11 INSPEC (C) 2006 IET on STN

ACCESSION NUMBER: 1988:3080002 INSPEC

DOCUMENT NUMBER: B1988-015628

TITLE: Fully solid-state radar for air traffic control

AUTHOR: de Ledinghen, N.; Wonnenberger, L. (Thomson-CSF, Paris, France)

SOURCE: International Conference Radar 87 (Conf. Publ.

No.281), 1987, p. 145-9 of xvii+612 pp., 11 refs.
ISBN: 0 85296 352 1
Published by: IEE, London, UK
Conference: International Conference Radar 87 (Conf.
Publ. No.281), London, UK, 19-21 Oct. 1987

DOCUMENT TYPE: Conference; Conference Article
TREATMENT CODE: Practical
COUNTRY: United Kingdom
LANGUAGE: English

AN 1988:3080002 INSPEC DN B1988-015628

AB The safest answer to air traffic control requirements in terminal areas is still obtained by the use of primary radars. To satisfy increasing requirements in terms of all weather and all sites performance, of service reliability and ease of maintenance, primary radars for approach air traffic control have incorporated solid-state technology in receivers, **synthesizers**, and processing. In most of today's radars, however, the transmitter and the display subsystems continue to use **vacuum tubes**

L8 ANSWER 10 OF 11 INSPEC (C) 2006 IET on STN

ACCESSION NUMBER: 1984:2271527 INSPEC
DOCUMENT NUMBER: C1984-031836
TITLE: Micro-professor MPF-1 Plus
AUTHOR: Tooley, M.
SOURCE: Practical Electronics (April 1984), vol.20, no.4, p. 58-60, 0 refs.
CODEN: PRELBY, ISSN: 0032-6372

DOCUMENT TYPE: Journal
TREATMENT CODE: Practical
COUNTRY: United Kingdom
LANGUAGE: English

AN 1984:2271527 INSPEC DN C1984-031836

AB The author describes the Micro-professor MPF-1 Plus which is a low-cost Z80 based microprocessor learning aid. This basic system, consists of a single-board fitted with a Z80 CPU, 2K ROM, 2K RAM, and a 49-key keyboard which uses a conventional QWERTY layout. The documentation includes a monitor listing, and a 'User's Experiment Manual'. There is a twenty character, fourteen segment, **vacuum** fluorescent display. The various options available include an EPROM programmer, speech **synthesizer**, printer/disassembler, and I/O board. A separate AC mains adaptor is supplied which operates from a 240 V 50 Hz supply and provides a nominal 9 V output at 600 mA

L8 ANSWER 11 OF 11 COMPENDEX COPYRIGHT 2006 EEI on STN

ACCESSION NUMBER: 1995(51):847 COMPENDEX
TITLE: Frequency-agile radar: a multifunctional approach to remote sensing of the ionosphere.
AUTHOR: Tsunoda, R.T. (SRI Int, Menlo Park, CA, USA); Livingston, R.C.; Buonocore, J.J.; McKinley, A.V.
SOURCE: Radio Science v 30 n 5 Sep-Oct 1995.p 1623-1643
CODEN: RASCAD ISSN: 0048-6604

PUBLICATION YEAR: 1995
DOCUMENT TYPE: Journal
TREATMENT CODE: Application
LANGUAGE: English

AN 1995(51):847 COMPENDEX

AB We introduce a new kind of diagnostic sensor that combines multifunctional measurement capabilities for ionospheric research. Multifunctionality is realized through agility in frequency selection over an extended band (1.5 to 50 MHz), system modularity, complete system control by software written in C, and a user-friendly computer interface. This sensor, which we call the frequency-agile radar (FAR), incorporates dual radar channels and an arbitrary waveform **synthesizer** that allows creative design of sophisticated waveforms as a means of increasing its sensitivity to weak

signals while minimizing loss in radar resolution. The sensitivity of the FAR is determined by two sets of power amplifier modules: four 4-kW solid-state broadband amplifiers, and four 30-kW vacuum tube amplifiers. FAR control is by an AT-bus personal computer with on-line processing by a programmable array processor. The FAR does not simply house the separate functions of most radio sensors in use today, it provides convenient and flexible access to those functions as elements to be used in any combination. Some of the first new results obtained with the FAR during recent field campaigns are presented to illustrate its versatility. These include (1) the first detection of anomalous high-frequency (HF) reflections from a barium ion cloud, (2) the first evidence of unexpectedly large drifts and a shear north of the equatorial electrojet, (3) the first HF radar signature of a developing equatorial plasma bubble, and (4) the first measurements by a portable radar of altitude-extended, quasi-periodic backscatter from midlatitude sporadic E. We also mention the potential of the FAR for atmospheric remote sensing. (Author abstract) 78 Refs.

=> display 19 1-22 ibib abs

L9 ANSWER 1 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:402330 CAPLUS
 TITLE: Integrated momentum exchanger for preventing exhaust pollution
 INVENTOR(S): Zhang, Yuguang; Jiao, Xinmin; Zhang, Zhongqiang
 PATENT ASSIGNEE(S): Guangzhou Tunju Industry Co., Ltd., Peop. Rep. China
 SOURCE: Faming Zhanli Shengqing Gongkai Shuomingshu
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
CN 1724853	A	20060125	CN 2005-10035306	20050616
PRIORITY APPLN. INFO.:			CN 2005-10035306	20050616

AB The title integrated momentum exchanger comprises connected parallel momentum exchangers arranged by multiple stages, wherein the exchanger of each stage comprises injection receiving tubes, diffusers, tapered bores, and negative pore; multiple pressurization pipes are disposed in parallel between the first and forth stage momentum exchanger; one end of the first stage momentum exchanger is connected with an exhaust port of exhaust gas while the other end is connected to the second stage exchanger; the exchangers are sequentially connected with the corresponding next stage exchanger one by one; the terminal stage exchanger is connected to a noise reduction section which is connected with a gas discharge pipe via a connecting flange; and the gas discharge pipe is connected with an end discharge port via a vacuum gas recovery rectification device.

L9 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:295896 CAPLUS
 TITLE: Effluent treatment type piping of dentistry chair unit [Machine Translation].
 INVENTOR(S): Nakano, Hitoshi
 PATENT ASSIGNEE(S): [NAME NOT TRANSLATED]****, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006082067	A2	20060330	JP 2004-303536	20040917
PRIORITY APPLN. INFO.:				
JP 2004-303536 20040917				
AB [Machine Translation of Descriptors]. Improvement of the effluent treatment type piping which can do the barrier free conversion of the dentistry clinic is assured. Dentistry chair unit it installs the confluence unit 2 which, connects with vacuum air tube b to the draining piping a which ties 10 and draining separator 13 the float valve distribution facilities it does the float receiving seat 23 which, assists 21 which surfaces due to the retained water of unit 10 connection piping a and the surfacing and drop manual operation or air valve switch 11 of the syringe which is provided automatically in the end of the vacuum air tube opening it operates, as the switch circuit 27 or switch equipped facilities hanger 5 distribution facilities is done, the waste water tank 3 is established to electromagnetic opening and closing valve 6 attachment draining exit piping of draining separator 13, draining In the tank with electromagnetic opening and closing valve 17 for the draining discharge which electromagnetic opening and closing valve 7 attachment pressurization air piping c and float 22 attachment water level perception sensor 8, or is added distribution facilities it did in draining exit piping, in the downstream, it connected the pipe conduit which the slope which includes riser 9 is not taken to existing draining piping, became independent with draining separator 13 operation, storage of the waste water tank 3 storage water and operation of pressurization discharge possibly constituted.				

L9 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1222813 CAPLUS
 DOCUMENT NUMBER: 144:441134
 TITLE: Hot radial pressing: an alternative technique for the manufacturing of plasma-facing components
 AUTHOR(S): Visca, E.; Libera, S.; Mancini, A.; Mazzone, G.; Pizzuto, A.; Testani, C.
 CORPORATE SOURCE: C.R. Frascati, Associazione EURATOM-ENEA sulla Fusione, Frascati, 00044, Italy
 SOURCE: Fusion Engineering and Design (2005), 75-79, 485-489
 CODEN: FEDEEE; ISSN: 0920-3796
 PUBLISHER: Elsevier B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The hot radial pressing (HRP) manufacturing technique is based on the radial diffusion bonding principle performed between the cooling **tube** and the armor tile. The bonding is achieved by **pressurizing** the cooling **tube** while the joining **interface** is kept at the **vacuum** and temperature conditions. This technique has been used for the manufacturing of relevant mock-ups of the ITER divertor vertical target.

Tungsten monoblock mock-ups were successfully tested to high heat flux thermal fatigue (20 MW/m² of absorbed heat flux for 1000 cycles). After these good results the activity is now focused on the developing of a manufacturing process suitable also for the CFC monoblock mock-ups. A FE calcn.

was performed to investigate the stress involved in the CFC tiles during the process and to avoid the CFC fracture. The results obtained by the FE calcn. and by the test performed in air simulating a HRP manufacturing process for a CFC monoblock mock-ups are reported.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:1175122 CAPLUS
 TITLE: Combined pressure test and clean apparatus
 INVENTOR(S): Nealon, Joseph M.
 PATENT ASSIGNEE(S): The Boeing Company, USA
 SOURCE: U.S. Pat. Appl. Publ.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005241677	A1	20051103	US 2004-838048	20040503
PRIORITY APPLN. INFO.:			US 2004-838048	20040503

AB An apparatus for cleaning and pressure testing tube structures comprising a cleaning fluid supply pump and a pressurization pump alternately in fluid communication with a feed header having a feed header interface engageable to an end of at least one tube structure and a drain header having a drain header interface engageable to an opposing end of the at least one tube structure and an outlet valved so as to be selectively closed or opened depending on mode of operation of the apparatus. The apparatus cleans and pressure tests a tube by engaging a tube between the feed header interface and the drain header interface and maintaining said engagement while sequentially flowing a cleaning fluid through the inner diameter of the hollow tube, pressurizing a static fluid within the hollow tube, and releasing fluid from the tube.

L9 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:408842 CAPLUS
 DOCUMENT NUMBER: 142:466440
 TITLE: Hydrogen purification process using pressure swing adsorption for fuel cell applications
 INVENTOR(S): Gittleman, Craig S.; Appel, William Scot; Winter, David Phillip; Sward, Brian Kenneth
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 21 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005098034	A1	20050512	US 2003-706320	20031112
PRIORITY APPLN. INFO.:			US 2003-706320	20031112

AB A PSA system that purifies a feed gas, such as a reformate gas in fuel cell system is disclosed. The PSA system includes a series of vessels housing an adsorbent or combination of adsorbents that adsorb carbon monoxide, carbon dioxide, nitrogen, water and methane in the reformate gas. The adsorbent vessels are connected to each other and a feed manifold, a product manifold and an exhaust manifold through suitable conduits, where the gas flows are controlled by a product rotating valve and feed rotating valve or a series of open/shut valves. A specialized PSA cycle controls the valves so that the vessels cycle through various stages of equalization, blow-down, purge, pressurization and production to purify the feed gas.

L9 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:1118346 CAPLUS
 TITLE: Method and apparatus for high-pressure wafer processing and drying
 INVENTOR(S): Bergman, Eric J.; Sharp, Ian; Meuchel, Craig P.;
 Woods, H. Frederick
 PATENT ASSIGNEE(S): Semitool, Inc., USA
 SOURCE: Taiwan
 CODEN: TWXXA5
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
TW 565873	B	20031211	TW 2001-90100742	20010112
PRIORITY APPLN. INFO.:			US 2000-481651	A 20000112

AB A system for high-pressure drying of semiconductor wafers includes the insertion of a wafer into an open vessel, the immersion of the wafer in a liquid, pressure-sealing of the vessel, pressurization of the vessel with an inert gas, and then the controlled draining of the liquid using a moveable drain that extracts water from a depth maintained just below the gas-liquid interface. Thereafter, the pressure may be reduced in the vessel and the dry and clean wafer may be removed. The high pressure suppresses the boiling point of liquids, thus allowing higher temperatures to be used to optimize reactivity. Megasonic waves are used with pressurized fluid to enhance cleaning performance. Supercritical substances are provided in a sealed vessel containing a wafer to promote cleaning and other treatment.

L9 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:1093064 CAPLUS
 TITLE: Vacuum type kimchi storing device and method thereof
 INVENTOR(S): Mito, Datsuhiko; Mito, Tsutae
 PATENT ASSIGNEE(S): Mito Tsutae, Japan; Mito Datsuhiko
 SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given
 CODEN: KRXXA7
 DOCUMENT TYPE: Patent
 LANGUAGE: Korean
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2000014282	A	20000306	KR 1998-33633	19980819
PRIORITY APPLN. INFO.:			KR 1998-33633	19980819

AB PURPOSE: A sanitary kimchi storing device is provided to keep a flexible container in a kitchen, in a room, or in a refrigerator by sealing firmly for the smell of kimchi not to be leaked out. CONSTITUTION: A kimchi storing device includes: a flexible container(1) for containing a kimchi to be sealed; a connecting tube(14) being combined to the flexible container for forming an air passage to discharge the air inside; a vacuum generating instrument(16) being connected to the connecting tube for pressurizing to the kimchi by the transformation of the flexible container by extracting the air inside of the flexible container; and an opening and closing valve being combined to the connecting tube. Therefore, the kimchi container has an excellent sealing force for the kimchi smell not to be leaked out.

L9 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:753638 CAPLUS
 TITLE: Vacuum blower place and its operational method
 [Machine Translation].
 INVENTOR(S): Shimizu, Osamu; Ikeda, Keisuke
 PATENT ASSIGNEE(S): Ebara Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004255318	A2	20040916	JP 2003-49938	20030226
PRIORITY APPLN. INFO.:			JP 2003-49938	20030226

AB [Machine Translation of Descriptors]. Offer the vacuum blower place and its operational method which assure cost decrease, the improvement of energy efficiency and the improvement of system stability. In the water catchment tank 3 and vacuum blower the sewage incurrent canal to possess with 1 which is connected 7 and the said water catchment tank 3 and sewage force tube 5, decompressing inside water catchment tank 3 with vacuum blower, 7 the water catchment to do the sewage, to designate sewage collection draining unit as 2 groups of A and B in the vacuum blower place which possesses the sewage collection draining unit of the constitution which drains the sewage which pressurizes inside said water catchment tank 3, making use of the reciprocal rotary operational possible roots type vacuum blower as vacuum blower 7, the sucking/absorbing mouth of one side of said vacuum blower 7 the pressure pipe Through, as you connect to the water catchment tank 3, through atmospheric gate valve 10, you connect the other sucking/absorbing mouth to the atmosphere, you connect to air release pipe 9, exhaust do with correct revolution driving of said vacuum blower and 7 decompress inside water catchment tank 3, pressurize inside water catchment tank 3 with opposite revolution driving.

L9 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:678016 CAPLUS
 TITLE: The repairing methods of the draining installation tube and the support winch which is used
 [Machine Translation].
 INVENTOR(S): Kimura, Eiki
 PATENT ASSIGNEE(S): Kimura, Shigeki, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004232329	A2	20040819	JP 2003-21878	20030130
JP 3685494	B2	20050817		
PRIORITY APPLN. INFO.:			JP 2003-21878	20030130

AB [Machine Translation of Descriptors]. It operates without digging up the regeneration remedial work of the burying draining installation tube which from the sewage measure and the rainwater measure has been communicated to the sewer main pipe, simultaneously, operates also the regeneration repair of the installation section of the draining installation tube and the main pipe. The repairing materials connecting with 5 which includes the tubular repair cloth material

51 which impregnation it could point the synthetic resin and tubular reversal rubber 4, this **connection pressurizing** expanding to the support plate 94 where you install inside reversal guide 2, reversal rubber in order from reversal guide 2 to inside the **draining installation tube** P₁ for repairing materials 5 to be outside reversal rubber 4, reversing inserting 4 and repairing materials 5 due to the action to of reversal rubber 4 of high pressure fluid A, extends repair cloth material advanced 51_E into the main pipe P₀ arranges reversal rubber 4 inside the main pipe P₀ to the point of reversal rubber 4 As swelling balloon 4b is formed, repairing materials 5 pressure welding is done on the installation tube P₁inside perimeter aspect, repair cloth material advanced 51_Ein the brim R form which covers installation tube mouth PE it hardens the impregnation synthetic resin when opening pressure welding it is done, pulls out reversal rubber 4 after the hardening, the repair regeneration tube it becomes shape depending upon 1 repair cloth material 51.

L9 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:568153 CAPLUS
 DOCUMENT NUMBER: 139:236581
 TITLE: Experimental verification of effectiveness of a pressure suppression system in ITER
 AUTHOR(S): Takase, K.; Shibata, M.; Watanabe, H.; Akimoto, H.
 CORPORATE SOURCE: Japan Atomic Energy Research Institute, Japan
 SOURCE: JAERI-Review (2003), 2003-004, Nuclear Energy System Department Annual Report (2001-2002), 92-94
 CODEN: JERVE9

DOCUMENT TYPE: Report
 LANGUAGE: English

AB Effectiveness of the ITER vacuum vessel pressure suppression system (VVPSS) during the ingress-of-coolant event (ICE) was studied. A concept of the ITER VVPSS mainly consists of a suppression tank, drain tank, relief pipes, drain pipe and rapture disks. The suppression tank initially holds H₂O under low temperature and pressure (25° and 2.3 kPa) and is connected through 3 relief pipes with the plasma-facing components (PFC). The drain tank is connected through a drain pipe with the bottom of the VV. Because of the pressurization during the ICE the rapture disks at the relief and drain piping are broken. Consequently, the generated vapor in the PFC during the ICE flows through the relief pipes into the suppression tank and condenses. However, the remained H₂O in the PFC goes through the divertor and drain pipe to the drain tank. It was found from the exptl. results that the ITER VVPSS were very effective to reduce the pressure rise during the ICE.

L9 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:497882 CAPLUS
 TITLE: Portable-type cleaning device for internal combustion engine
 INVENTOR(S): Chang, Yen-hsi
 PATENT ASSIGNEE(S): Taiwan
 SOURCE: U.S.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6584993	B1	20030701	US 2000-706381	20001106
PRIORITY APPLN. INFO.:			US 2000-706381	20001106

AB A portable-type cleaning device for internal combustion engine comprising

a container containing a cleaning solution and a guiding **tube** connected to the container and the internal combustion engine, and an opening being provided at the top end of the container for the insertion of the guiding **tube**, wherein, the middle section of the guiding **tube** is provided with a pressurizing hole for the entry of air, and the height of the pressurizing hole is at least higher than that of the level of the cleaning solution within the container. The other end of the guiding **tube** is directly inserted into the air-inlet **tube** of the internal combustion engine. The **vacuum** suction created by igniting the internal combustion engine drives the cleaning solution and air to enter respectively through the bottom end and the **pressurizing** hole of the **tube**. At the same time, the air and the cleaning solution are mixed forming into bubbles or atomized, entering the internal combustion engine. Thus the accumulated carbon in the internal combustion engine and the pipes thereof are cleaned away.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:34152 CAPLUS

TITLE: Purge method of the residual gas which is inside the cylinder cabinet and its piping. [Machine Translation].

INVENTOR(S): Sakamoto, Yutaka; Kano, Tsuneo; Ogawa, Takashi; Matsumura, Hiroshi; Sango, Toshiaki; Ito, Kiyosumi; Ootake, Norio

PATENT ASSIGNEE(S): NEC Corp., Japan; Toyoko Kagaku Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003014193	A2	20030115	JP 2001-194662	20010627
TW 557342	B	20031011	TW 2002-91114263	20020627
US 6698469	B2	20040302	US 2002-180497	20020627

PRIORITY APPLN. INFO.: JP 2001-194662 A 20010627

AB [Machine Translation of Descriptors]. While primary side arranging pipe the gas which remains behind **purge** is done at high efficiency, the case of compressed leaving **purge** and immediately before **purge**, while primary side arranging pipe while **pressurizing**, the **vacuum** generator is made to stop. The cylinder 1 where gas 22 is accommodated has cylinder original valve 23, filling up **tube** 2, primary side piping 14, air operating valve 6, decompression valve 7, downstream piping through 19 and air operating valve 10, connects on supplier. Inert gas 15, through air operating valve 13, it flows into primary side piping 14. As for primary side piping, air operating valve through 5 and piping 20, you connect to vacuum generator 11. While primary side arranging pipe, 2-10 **purge** it does with the residual gas which is while primary side arranging pipe by doing compressed leaving **purge** the **vacuum** pulling of **pressurization** leaving and 20 s with the inert gas of amount is repeated automatically, as a exhaust 18.

L9 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:918541 CAPLUS

TITLE: The method of fabrication of the metal body which possesses the **tube** road. [Machine Translation].

INVENTOR(S): Ariga, Tadashi
 PATENT ASSIGNEE(S): [NAME NOT TRANSLATED], Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002347036	A2	20021204	JP 2001-154978	20010524
PRIORITY APPLN. INFO.:			JP 2001-154978	20010524

AB [Machine Translation of Descriptors]. The method of producing the metal body which provides the tube road which travels in a complicated way efficiently is offered. In the component (11) - (15), the tube road (21) of the liquid and the vapor etc. - (24) being the concave section which becomes and something which to form in the respective component with machining, to put the brazing filler metal of foil condition to the respective composition plane, while the accumulating and the vacuum or in the inert gas pressurizing and heating unifies the hole with wax attaching connecting, as for the tube road (21) entrance (21a) (21c) with passage (21b), as for the tube road (22) entrance (22a) (22c) with passage (22b), the tube road (23) Entrance (23a) (23c) with passage (23b), the tube road (24) entrance (24a) (24c) with like the passage (24b), you can obtain the metal body (10) where it can provide the tube road which travels in a complicated way.

L9 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:140023 CAPLUS
 TITLE: Shouldering formula water extinguishing equipment.
 [Machine Translation].
 INVENTOR(S): Ishizuka, Kazuo; Noji, Yasuyuki; Taki, Tetsuya;
 Kakuta, Kaneyasu; Yamazaki, Kenichi
 PATENT ASSIGNEE(S): Yamato Protec Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001054585	A2	20010227	JP 1999-230116	19990816
PRIORITY APPLN. INFO.:			JP 1999-230116	19990816

AB [Machine Translation of Descriptors]. To make the power of the manual pump and the like unnecessary, be able to drain water safely with one-hand operation even such as the slope whose foothold is bad by making drainage possible with the pressurization by the compressed air, to crack the use polyethylene terephthalate bottle is reused furthermore as the water container being light, the shouldering formula water extinguishing equipment which can assure the decrease of production cost and the retrenchment of the material is offered. Back negative child true form 1 constitutes due to passing water rod 7. In order in plural places of passing water rod 7, for oral section 3 A of use being completed polyethylene terephthalate bottle 3 to become downward, the bottle support oral section 23 where said polyethylene terephthalate bottle 3 is bonded to upside-down state is provided. Provides outlet 5 in the bottom of back negative child true form, 1 this outlet connects with 5 and the discharge tube 4 for the water sprinkling with combined hose 6. The water and the compressed air fill up in polyethylene terephthalate bottle 3. It is

possible to drain water from exhaust nozzle 15 by opening the opening and closing valve 17 inside discharge tube 4 for the water sprinkling with the one-hand which has the discharge tube 4 for the water sprinkling.

L9 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:242789 CAPLUS
DOCUMENT NUMBER: 130:239785
TITLE: Multifunctional vacuum oil filtration apparatus
INVENTOR(S): Zhang, Renjie; Dang, Yongxing; Zhang, Mingfei; Liu, Huanlao; Shi, Linshan; Zhang, Zhourang; Jin, Fuqun; Yu, Jianwei
PATENT ASSIGNEE(S): Electrical Equipment Factory of No. 3 Division of Electrification Engineering Bureau, Ministry of Railways, Peop. Rep. China
SOURCE: Faming Zhanli Shenqing Gongkai Shuomingshu, 11 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1171976	A	19980204	CN 1996-111701	19960809
CN 1053123	B	20000607		

PRIORITY APPLN. INFO.: CN 1996-111701 19960809
AB The title filter consists of pump for introducing oil, primary strainer, heater, **vacuum** pump, oil **drain** pump, fine strainer and **valves** for oil-feeding and oil-releasing, atomization blow head and evaporation elements in the **vacuum** pump, 2-5 sets of the tubular heaters arranging in a column, the oil-feeding **tube** of the heaters **connecting** to the lowest heater of the heaters, oil-releasing **tube** **connecting** to the highest heater, oil level monitor equipped on the side-wall of the **vacuum** pump, oil water separator between the **vacuum** pump and the **vacuum** pump, oil **pressurization** monitoring element equipped on pipeline between the **vacuum** pump and the oil water separator, the control circuit and the oil **pressurization** analog-processing circuit of oil level, oil pressure and oil temperature. The oil level monitor includes upper and lower oil level monitors composed of flange, upper and lower inductors, fixed inductor, floating ball in driving connection to the fixed inductor, and upper and lower triggers set on the floating ball; signal output wire of the upper and lower inductors connects to the oil level control circuit. The oil **pressurization** monitoring element consists of humidity sensor and temperature transmitter set in the pipeline and connected to the oil **pressurization** analog-processing circuit in switch-box. Oil temperature sensor and temperature appearance are equipped

on the pipeline between the **vacuum** pump and the heaters, and the signal output of the oil temperature sensor connects to the oil temperature control circuit

in the switch-box. Oil-feeding piezometer, **vacuum** piezometer, oil-releasing piezometer and filtering piezometer are equipped on corresponding pipelines in the titled filter, pressure sensors are also set in these pipelines, and the signal output wires of the pressure sensors connects to the pressure control circuit. Built-in cyclic valves are set in the pipeline between the oil-outs of the primary filter and the fine filter.

L9 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:492213 CAPLUS
DOCUMENT NUMBER: 130:58239
TITLE: Response of ITER to loss of vacuum accidents

AUTHOR(S) : Gay, J. M.; Marbach, G.; Gulden, W.
CORPORATE SOURCE: Technicatome, Aix-en-Provence, 13791, Fr.
SOURCE: Fusion Engineering and Design (1998), 42, 89-93
CODEN: FEDEEE; ISSN: 0920-3796
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Air leakage into the ITER **vacuum vessel** initially under **vacuum** during plasma burning or maintenance operations may lead to chemical reactions and to its **pressurization**. Production of energy, generation of large amts. of reaction products and radioactivity mobilization may be induced. In the frame of the Non-site Specific Safety Report (NSSR-1), this paper analyses and provides pressure transients inside the **vessel**, resulting in inlet or **outlet** gas flows and amts. of activated materials released to the **connected** room and finally to the environment. It is shown that even during plasma burning phases, the amount of reaction products remains limited or negligible. Moreover, the final releases to the environment are well below the corresponding release limits.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:338254 CAPLUS
DOCUMENT NUMBER: 124:356757
TITLE: Purging of residues of reaction gases
INVENTOR(S): Igarashi, Mitsuo
PATENT ASSIGNEE(S): Fujitsu Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08088183	A2	19960402	JP 1994-222805	19940919
PRIORITY APPLN. INFO.:			JP 1994-222805	19940919

AB The title process comprises use of a purge system, which consists of a purge gas **vessel** filled with an inactive gas (e.g., N) and supply pipes there from, which are common to a number of reaction gas cylinders **connected** to individual reaction systems and exhaust systems to purge residues of the reaction gases remaining in orifices of the **valves** of the cylinders and supply pipes **connected** there to. The **purge gas vessel** may be evacuated before filling the **vessel** with the inactive gas, and the orifices of the valves of the cylinders and supply pipes after exchange of the cylinder(s) may be checked for air-tightness by **pressurizing** to fill using the **purge** system. The process has advantages of low equipment cost, small area occupancy, and increased efficiency in use of the **purge** gas, and is useful for CVD and etching apparatus

L9 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1973:99577 CAPLUS
DOCUMENT NUMBER: 78:99577
TITLE: Water injecting device for high pressure gases
AUTHOR(S): Marzais, J. J. L.
CORPORATE SOURCE: Soc. Ethylene Plast., Paris, Fr.
SOURCE: Saf. High Pressure Polyethylene Plants (1973), 42-8.
AICHE: New York, N. Y.
CODEN: 26KCAS
DOCUMENT TYPE: Conference
LANGUAGE: English

AB A water-injecting device for a high-pressure gas (e.g., C₂H₄ during polymerization) allows the temperature of the drained gas to be lowered, and the risks

of accidents when the gas is discharged into air are considerably lessened. The device consists of a tank fitted with a water inlet, a **pressurizing tube connected to the inlet of a Venturi**, a water-level indicator, a **dip tube for draining connected to a discharge chimney**, and **exit drain**, and an **escape tube fitted with a rupture disk or valve and connected to the outlet of the discharge chimney**. The system is thus protected in case of overpressure. Equations for design calcns. are given.

L9 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1972:103791 CAPLUS

DOCUMENT NUMBER: 76:103791

TITLE: Automatic device for the rapid differential-thermal analysis of drugs at variable gas-phase pressures

AUTHOR(S): Shishkin, Yu. L.

CORPORATE SOURCE: Mosk. Med. Inst. im. Sechenova, Moscow, USSR

SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1972), 6(1), 60-2
CODEN: KHFZAN; ISSN: 0023-1134

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB A DTA apparatus for the study and control of drugs comprises a heating block with 2 container cavities, one for the substance being tested and one for a standard, a differential thermocouple, a photocompensation amplifier and two automatic electronic potentiometers. A double porcelain **tube** surrounding the thermocouple is used to fix the position of the thermocouple in the sample and to pack down the sample. Sensitivity is controlled by an amplifier, e.g. for a 0.02 g sample, a heating rate of 13°/min, using a 0.2 mm diameter Chromel-Alumel thermocouple, the amplifier sensitivity range was 0.7 mV over the whole scale. To study gas phase processes, a **pressurizing attachment** can be fitted, comprising a buffer **vessel** (.apprx.20 l.) **connected** via a **vacuum** line to a pump, manometer and the sample **tubes**. All parts of the apparatus are sealed. The pressure range is <1 mm Hg to 2 atmospheric Thermograms of levomycin and oxytetracycline hydrate are given.

L9 ANSWER 20 OF 22 INSPEC (C) 2006 IET on STN

ACCESSION NUMBER: 2006:8792921 INSPEC

TITLE: Hot radial pressing: An alternative technique for the manufacturing of plasma-facing components

AUTHOR: Visca, E.; Libera, S.; Mancini, A.; Mazzone, G.; Pizzuto, A.; (Associazione EURATOM-ENEA, Frascati, Italy), Testani, C.

SOURCE: Fusion Engineering and Design (Nov. 2005), vol.75-79, p. 485-9, 5 refs.

CODEN: FEDEEE, ISSN: 0920-3796

SICI: 0920-3796(200511)75/79L.485:RPAT;1-Q

Doc.No.: S0920-3796(05)00255-3

Published by: Elsevier, Switzerland

DOCUMENT TYPE: Journal

TREATMENT CODE: Practical

COUNTRY: Switzerland

LANGUAGE: English

AN 2006:8792921 INSPEC

AB The Hot radial pressing (HRP) manufacturing technique is based on the radial diffusion bonding principle performed between the cooling **tube** and the armour tile. The bonding is achieved by **pressurizing the cooling tube** while the joining **interface** is kept at the **vacuum** and temperature conditions. This technique has been used for the manufacturing of

relevant mock-ups of the ITER divertor vertical target. Tungsten monoblock mock-ups were successfully tested to high heat flux thermal fatigue (20MW/m² of absorbed heat flux for 1000 cycles). After these good results the activity is now focused on the developing of a manufacturing process suitable also for the CFC monoblock mock-ups. A FE calculation was performed to investigate the stress involved in the CFC tiles during the process and to avoid the CFC fracture. The results obtained by the FE calculation and by the test performed in air simulating a HRP manufacturing process for a CFC monoblock mock-ups is reported in the paper. [All rights reserved Elsevier]

L9 ANSWER 21 OF 22 COMPENDEX COPYRIGHT 2006 EEI on STN

ACCESSION NUMBER: 2005(48):3945 COMPENDEX

TITLE: Hot radial pressing: An alternative technique for the manufacturing of plasma-facing components.

AUTHOR: Visca, E. (Associazione EURATOM-ENEA sulla Fusione C.R. Frascati, 00044 Frascati-RM, Italy); Libera, S.;

Mancini, A.; Mazzone, G.; Pizzuto, A.; Testani, C. Fusion Engineering and Design v 75-79 n SUPPL.

SOURCE: November 2005 2005.p 485-489

CODEN: FEDEEE ISSN: 0920-3796

PUBLICATION YEAR: 2005

DOCUMENT TYPE: Journal

TREATMENT CODE: Theoretical

LANGUAGE: English

AN 2005(48):3945 COMPENDEX

AB The Hot radial pressing (HRP) manufacturing technique is based on the radial diffusion bonding principle performed between the cooling tube and the armour tile. The bonding is achieved by pressurizing the cooling tube while the joining interface is kept at the vacuum and temperature conditions. This technique has been used for the manufacturing of relevant mock-ups of the ITER divertor vertical target. Tungsten monoblock mock-ups were successfully tested to high heat flux thermal fatigue (20 MW/m² of absorbed heat flux for 1000 cycles). After these good results the activity is now focused on the developing of a manufacturing process suitable also for the CFC monoblock mock-ups. A FE calculation was performed to investigate the stress involved in the CFC tiles during the process and to avoid the CFC fracture. The results obtained by the FE calculation and by the test performed in air simulating a HRP manufacturing process for a CFC monoblock mock-ups is reported in the paper. \$CPY 2005 Elsevier B.V. All rights reserved. 5 Refs.

L9 ANSWER 22 OF 22 COMPENDEX COPYRIGHT 2006 EEI on STN

ACCESSION NUMBER: 1999(4):3565 COMPENDEX

TITLE: Response of ITER to loss of vacuum accidents.

AUTHOR: Gay, J.M. (Technicatome, Aix-en-Provence, Fr); Marbach, G.; Gulden, W.

MEETING TITLE: Proceedings of the 1997 4th International Symposium on Fusion Nuclear Technology. Part C.

MEETING LOCATION: Tokyo, Jpn

MEETING DATE: 06 Apr 1997-11 Apr 1997

SOURCE: Fusion Engineering and Design v 42 n Pt C Sep 3 1998.p 89-93

CODEN: FEDEEE ISSN: 0920-3796

PUBLICATION YEAR: 1998

MEETING NUMBER: 49293

DOCUMENT TYPE: Journal

TREATMENT CODE: General Review; Theoretical

LANGUAGE: English

AN 1999(4):3565 COMPENDEX

AB Air leakage into the ITER vacuum vessel initially under vacuum during plasma burning or maintenance operations may lead to chemical reactions and to its pressurization. Production

of energy, generation of large amounts of reaction products and radioactivity mobilization may be induced. In the frame of the Non-Site Specific Safety Report (NSSR-1), this paper analyses and provides pressure transients inside the vessel, resulting in inlet or outlet gas flows and amounts of activated materials released to the connected room and finally to the environment. It is shown that even during plasma burning phases, the amount of reaction products remains limited or negligible. Moreover, the final releases to the environment are well below the corresponding release limits. (Author abstract) 5 Refs.